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NUEXCO

NOVEMBER 1981 NUMBER 159

Monthly Report on the Uranium Market

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MONTHLY REPORT ON THE URANIUM MARKET

November 1981 No. 159

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FOREWORD

We are very pleased to announce that Jim Vaughan and Katie Bowen are opening the Nuexco East Coast office this month at 450 Avenue of the Americas, New York, New York 10011. Formal announcements will be mailed at a later date to include mailing address, telephone and telex information as well as directions.

Nuexco will host a hospitality suite during the Atomic Industrial Forum Annual Conference 1981. The suite will be at the St. Francis Hotel in San Francisco, November 29-December 2.

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URANIUM MARKET

PRICING

The **Exchange Value** remained at $23.50 per pound U_3O_8 for the fourth consecutive month.

The market was relatively active during October as five sales were made by US sellers, involving a total of about 1.8 million pounds U_3O_8. Two of the transactions were for immediate delivery and were priced somewhat below Exchange Value. Two others were for delivery in 1982 with fixed prices somewhat above Exchange Value. The last transaction was for delivery in 1983-84 with a base price below Exchange Value, but subject to index escalation to the time of delivery.

The near-term market is firming up both on the supply side and the demand side. The total of material available for sale, as indicated in the *Market Opportunities* section of the Report, is about 8.7 million pounds U_3O_8. About sixty percent of this material is being offered for sale by utilities. At least six separate utilities are active sellers in the near-term market, up from the average over the last few months.

Likewise, the demand side of the market is continuing to strengthen. The total of demand in the near-term market is about 4.3 million pounds U_3O_8, about two-thirds of which is being sought by producers. The number of projects listed on the demand side of the *Market Opportunities* section of the Nuexco Report has been growing over the past several months.

With both the supply side and the demand side of the near-term market growing, one might look forward to a relatively brisk market over the next several months. The market may be characterized as being in *unstable equilibrium*. With so many inventory holders actively trying to sell, it is possible that several will become aggressive simultaneously and combine to drive prices down. At the same time, decisions by several producers to lock up near-term supply, as an alternative to producing material themselves to deliver under supply contracts, could firm up prices. Active market participants should watch the market carefully, because prices could move suddenly.

The **Transaction Value** increased slightly to $24.10 per pound U_3O_8 from $23.90 the previous month. The increase was largely on the strength of the two fixed price contracts for 1982 delivery which closed this month. The **Loan Use Charge Rate** increased to six percent this month as potential lenders generally increased the rates being sought.

The **Conversion Value** remained at $1.10 per pound U for the third consecutive month. No conversion transactions are reported this month.

In the *Market Opportunities* section of this Report, the listing of inquiries to buy or sell conversion services in the secondary market indicates the emergence of several conversion buyers, some of which have longer term needs. However, available conversion supply continues to outweigh demand by a significant margin. In the zero to one year time frame, available supply exceeds inquiries to purchase by six to one. Thus, the increase in demand for secondary market conversion services in the near term continues to be small in relation to the overabundant supply situation and effectively constrains any significant upward price movement for the time being. The price terms being discussed in transactions currently under negotiation substantiate this conclusion.

There are five natural uranium transactions reported this month:

1. A US reactor vendor made an intermediate term sale to a US producer for between 300 thousand and 600 thousand pounds U_3O_8. Deliveries are scheduled for 1983 and 1984.
2. A US utility made a spot sale to a non-US buyer for between 300 thousand and 600 thousand pounds U_3O_8.
3. A US producer sold a US utility between 100 thousand and 300 thousand pounds U_3O_8, with delivery scheduled for 1982.
4. A US intermediary made a small spot sale to a US producer. Delivery is immediate, and the quantity is less than 50 thousand pounds U_3O_8.
5. One US utility sold another between 300 thousand and 600 thousand pounds U_3O_8. Delivery will take place in 1982.

There are no conversion transactions reported this month.

AFRICA

A US delegation including representatives of the Department of Energy (DOE), Department of State and the Arms Control and Disarmament Agency met recently with South African authorities to discuss enrichment safeguards. While no specific announcements have been made, it is known that the US is searching for a politically acceptable rationale that

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will allow the export to South Africa, from the U.S. of the enriched uranium for the first core of Koeberg unit 1. South Africa delivered the feed to DOE in August 1981 and took delivery of enriched product on August 31, although the export of the product remains embargoed.

Concurrently, it has been learned that South Africa is preparing to designate a second nuclear plant site, on the southeastern coast, west of Cape St. Francis. The decision to proceed with a second nuclear project would seem to imply that the South Africans are confident about the availability of enrichment supply. This, in turn, suggests confidence in their own enrichment project or their ability to procure enrichment services elsewhere, in spite of their current problems.

Third quarter production figures from South African gold-uranium operations have recently been released and are presented in Table 1. The total represents a 2.73 percent decline from the second quarter. The East Dreifontein and West Dreifontein operations have merged to form Dreifontein Consolidated. However, uranium production still comes only from the West Dreifontein section.

West Rand Consolidated ceased uranium production on August 23, 1981 and put the uranium plant on standby.

Table 1
SOUTH AFRICAN
GOLD-URANIUM PRODUCTION
THIRD QUARTER 1981

Operation	Thousands of Pounds U_3O_8
Blyvoorvitzicht	175
Buffelsfontein	335
CHEMWES	370
ERGO	170
Harmony	335
Hartebeestfontein	240
J.M.S.	605
Randfontein	340
Vaal Reefs	955
West Dreifontein	140
West Rand Consolidated	55
Western Deep Levels	130
Total	3,850

AUSTRALIA

The Waterside Workers' and Seamen's Unions are maintaining their ban on uranium shipments from Australia. A recent attempt to ship about 600,000 pounds of U_3O_8 from Energy Resources of Australia's (ERA) Ranger mine from the port of Darwin was unsuccessful. The Seamen's Union is in a crucial position concerning exports because its members make up tug crews and crews of pilot vessels, without which ships are unable to enter or leave port or complete berthing maneuvers. The members' threats to refuse to service vessels carrying uranium have created sufficient discomfort among shipowners that they will not accept uranium cargo.

The Seamen's Union action is based on a 1980 uranium resolution passed by the Australian Council of Trade Unions (ACTU). The ACTU stated its support of a "policy of a moratorium on the mining, processing and export of uranium and the repudiation of non-Labor Government commitments until satisfactory safeguards are met." However, individual unions are free to accept or reject the ACTU resolution. The unions directly involved in the mining and milling of uranium are actively supporting the development of the industry and only the Seamen's Union has accepted the ACTU policy as binding on its members. The Waterside Workers' Union is supporting the Seamen's Union action and is refusing to load yellowcake on vessels as long as the Seamen's Union refuses to crew the ships carrying it.

The Australian government is unlikely to intervene in the situation until all avenues for reconciliation in this conflict have been explored by the uranium producers. In the interim, uranium is leaving Australian ports in limited amounts. A few months ago the Australian government "persuaded" a shipping line to carry material from Mary Kathleen Uranium Ltd. from the port of Brisbane and tug crews delayed the vessel by several days and threatened to effectively ban the vessel in all Australian ports should the shipper again accept a uranium cargo. Queensland Mines Ltd. has chartered foreign barges to carry its product but needs the cooperation of a variety of fringe services on the wharf to load them. Thus it would appear that Queensland remains vulnerable to union actions as well.

Pilot plant tests on Yeelirrie ore undertaken by the Western Mining Corp. (WMC) Esso Exploration and

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URANIUM MARKET

Production Australia Inc. joint venture will be completed by the end of the year. The successful research has established the metallurgical basis for the feasibility study planned for next year, and WMC is confident that the mine-mill complex will be committed for construction upon completion of feasibility work at the end of 1982, with production scheduled to start in 1985. The technical efforts are accompanied by a vigorous marketing drive.

Australia's Federal Budget for 1981-82 which lays down the economic policy for the next financial year, includes a tax law amendment which will have serious consequences for new resource developments. The budget is very close to legislative approval pending the completion of debate on a few minor issues. Under the old tax provisions a mining company could write off 67 percent of its allowable capital investment over the first five years. Now, it will be able to write off only 41 percent. Under the old provisions, it would have written off 89 percent after ten years; after the proposed amendments, the company will have written off 65 percent over the same period.

These new rates are lower than those for the less risky manufacturing industry (51 percent and 76 percent respectively). The effects of these provisions on early cash flow and the financing ability of developers will be significant. With equity markets weak, prevailing interest rates high and loan terms shorter, the viability of projects depends on high cash flow in the early years. Among uranium developments, the Jabiluka project is likely to be the most seriously affected by these changes owing to its high capital and infrastructure components. It is Nuexco's opinion that neither the Jabiluka, Koongarra, Honeymoon, Beverly, Yeelirrie nor Ben Lomond projects are economically feasible under current market conditions. If market prices for uranium increased substantially, and interest rates declined somewhat, the prognosis might be different.

The most recent round of Japanese and Australian safeguards negotiations ended after two weeks of talks without the conclusion of a bilateral agreement. Apparently, the Japanese found themselves still unable to accept the Australian policy, especially the inspection procedures. It is now very likely that the first shipments from the Ranger mine under contract with Japanese utilities will be delayed.

Wyoming Mineral Corp., a wholly-owned subsidiary of Westinghouse Corp., has sold its remaining Australian uranium interests to a local company Kratos Uranium NL for US $460,000. The sale involved interests in the Pandanus Creek and Jim Jim projects. This move completes Wyoming's retreat from uranium exploration in Australia. Earlier this year the company sold its 51 percent interest in the Lake Way project in Western Australia to Delhi International Oil Corp. and Vam Ltd.

On October 27 the Honeymoon uranium project in South Australia was given approval for development by the federal government. The project is currently owned by Mines Administration Pty. Ltd. (25.5 percent), Teton Exploration Drilling Co. Ltd. (25.5 percent) and Carpentaria Exploration Co. Pty. Ltd. (49.0 percent). Teton Exploration is partly owned by United Nuclear Corp. Resources Inc. Mines Administration is a wholly owned subsidiary of AAR Ltd. which is in turn owned by C.S.R. Ltd. Carpentaria is a wholly owned subsidiary of MIM Holdings Ltd.

With the government go ahead, pilot plant operations will begin, aiming to prove the feasibility of in-situ leaching, the first in Australia. The pilot plant is expected to take ten months to build. Commercial operation is anticipated in 1983 at about 100 tonnes U_3O_8 per year to be expanded to 450 tonnes U_3O_8 per year by 1985-86.

CANADA

Ontario Hydro announced during October that it will reduce the amount of uranium it takes under longterm contracts from Denison Mines Ltd. and Rio Algom Ltd. The revised agreement with Denison calls for a reduction of nine percent over the 31-year contract period and a one-year extension of deliveries (to 2012). A legal dispute over the development of Denison's Elliot Lake properties prompted the action which resulted in the settlement. The dispute arose over the production costs associated with a portion of the Elliot Lake deposit. The contract is based on the cost of production plus a minimum of Canadian $5 escalated per pound U_3O_8.

The 1978 uranium agreement between Ontario Hydro and Rio Algom is an output contract from Rio Algom's Stanleigh deposit and gives Ontario Hydro

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the option to reduce the annual deliveries by 15 percent. The announced delivery reductions results from the exercising of this option. The contract still calls for a total of 72 million pounds U_3O_8. However, the annual reductions will mean that deliveries under the 36-year contract will be extended over a longer period. Ontario Hydro will continue to provide the two producers interest-free loans for development of the properties.

The utility is anticipating the need for additional uranium supply in the late 1980's and early 1990's before a potential oversupply situation develops in the late 1990's. This demand can be filled by lower cost uranium, especially from western Canada. Given the high price of the uranium which Ontario Hydro is currently receiving, the opportunity to buy material near market price should be welcome.

EUROPE

The national energy programs of several European countries reflect continued uncertainty over the future of nuclear power. In Italy, a new national energy plan released a few months ago showed nuclear power generating 11.6 percent of Italian electricity by 1990. In 1980, only one-half of one percent was generated by nuclear power. Adding to the increased total is the 840 MWe Boiling Water Reactor (BWR) Caorso plant which was completed in 1978 and reached commercial full power operation last March. Already a part of the plan are two units at the Montalto di Castro site near Rome, each 982 MWe. Construction work on this project began two and one half years ago but political pressure has resulted in limited progress. According to the plan, the majority of the new nuclear energy is to come from four planned new units, each generating 1,600 MWe, scheduled for operation by 1990. The plan foresees three to four additional 1,000 MWe units being onstream by 1991. All would be Pressurized Water Reactors (PWR).

The energy plan includes increased coal-powered generating plants and additional research on alternate energy sources. The proposal, presented by the Industry Minister, must now be approved by the national government and the Italian Parliament. Even then, acceptance on the regional level must be gained because the Italian constitution does not give the central government a large amount of executive authority. Given the severity of the Italian need for additional power, it is hoped that the various political parties will develop a strategy to support the new energy plan and enforce it at the local level. The present government, as a first step, is looking to site three new power stations, two of them nuclear, by the end of the year. The success of this initial move could indicate the direction of nuclear power in Italy. If the country continues to experience political and social problems, it will be very difficult to realize the government's energy goals.

The issue of nuclear power in The Netherlands recently provoked dissension within the Labor Party following its formation of a new coalition government. The policy of the Labor Party had been to shut down Dodewaard, a 54 MWe experimental power station, and Borssele, a 450 MWe commercial station. However, the party was forced to drop this point during negotiations with the Christian Democrats and the Democrats 66, its partners in the new government. Instead, the new administration will undertake a six-month study of nuclear power.

The future of nuclear power in France was the subject of a much publicized, formal National Assembly debate in October. However, the debate was turned into a vote of confidence for the Socialist government to insure support for the Socialist energy policy. The Assembly approved the government's energy program by 331 votes for to 67 against.

According to the program, work will begin in 1982 and 1983 on six nuclear reactors as opposed to the nine which the previous government had proposed and four which a large number of Socialist deputies had wanted. This position would appear to satisfy the French nuclear industry which considered six to be the minimum acceptable. The forecast of slower growth in French electricity demand had led to expectations of a slowdown in the nuclear program.

During the election campaign, the Socialists had promised that the French themselves would take part in nuclear power decisions. The Prime Minister has now decreed that the municipal and, if necessary, the regional councils around the five sites frozen by the Socialist government on July 30 (Civaux, Cattenom, Golfech, Pellerin and Chooz) shall decide whether to allow construction of nuclear plants (or further units) on these sites. Voting has already started. However, should the local population vote against a nuclear plant and the government believe that its construction is in the national interest, the final decision shall rest

with the National Assembly (where there is a large Socialist majority).

The Prime Minister has also ordered the formation of regional energy agencies and local commissions so that information on nuclear power shall be decentralized. Part of his appeal to the people to support nuclear power was the idea that no more jobs could be created without economic growth and no growth could be achieved without energy.

There has been some confusion in reports from France on the names of the six plants which will be started in 1982-83. The names of these plants and the sites frozen do not necessarily correspond. It seems likely that four of the six plants mentioned in the debate will be the 900 MWe Chinon and the 1300 MWe Nogent-Sur-Seine unit 2 and Penly units 1 and 2, with two more plants to be chosen from the frozen sites.

At this point only the plans for 1982-83 are being discussed. The Socialists intend to return to 5-year planning, but because of the time involved to do so, decided to take measures for the next two years in the interim.

The French government has approved the modernization and expansion of the La Hague reprocessing plant where work on the building of UP3 is scheduled to start in March 1982, at the earliest. France has stated publicly its intention to honor its reprocessing obligations.

Until July 1, 1981, fuel fabrication was the only step in the French fuel cycle in which Cogema lacked a substantial shareholding. From that date, Framatome (30 percent subsidiary of the Commissariat à l'Energie Atomique (CEA)) and Cogema (100 percent subsidiary of the CEA) have joined forces to set up two companies in which they are equal shareholders.

The first new company is Fragema which is responsible for the design and sale of fuel assemblies and related components and services for PWRs. It is made up of the former fuel division of Framatome which moved from Paris to Lyon about two years ago.

The second company is Cogema-Framatome-Combustible (meaning fuel)(CFC) which is responsible for the construction and operation of a fuel assembly fabrication plant being built on the Pierrelatte site. It is scheduled for completion at the end of 1983 with a capacity of 500 tonnes of contained uranium per year.

Present French fabrication capacity is 800 tonnes per year from the Franco-Belge de Fabrication du Combustible (FBFC) plants at Romans (France) and Dessel (Belgium). On October 16, it was announced that this capacity would be expanded to 1,000 tonnes per year by 1983 with a 200 tonnes extension at the Romans plant. This expansion was planned before the Socialists won the French election.

Total French fabrication capacity will be, therefore, 1,500 tonnes per year by 1983. In order to assure Nuclear Steam Supply System (NSSS) customers of Framatome that only one supplier retains entire contractual responsibility for both the NSSS and fuel contracts, it has been decided that Framatome will continue to be responsible for first core supply together with the NSSS. Fragema will execute such contracts on behalf of Framatome, the CFC and FBFC companies then carrying out fuel assemblies fabrication.

FBFC is owned 87 percent by Eurofuel (which is owned 51 percent by Pechenay Ugine Kuhlman (PUK) and 49 percent by Framatome) and 13 percent by Mettalurgie et Mecanique Nucleaire (MMN).

The tie up between Framatome and Cogema had long been expected, but PUK's imminent nationalization could change the fuel fabrication picture still further.

Recent developments in Switzerland have focused national attention on the nuclear plant at Kaiseraugst near Basel. In mid-October, the president of the Kaiseraugst consortium stated on television that, contrary to media reports, his group was definitely not proposing to withdraw its application for construction.

The basis of the media reports was an earlier incident which was interpreted to mean that the utility was prepared to withdraw from the project. Specifically, in September of this year the utility sent the Federal Council (Bundesrat) of the Swiss Parliament a letter in which it asked for government guarantee of compensation in case the utility pulled out of the project. This marked the first time in 13 years that the utility had ever alluded to the fact that it might not proceed. The letter was received just three days before the Federal Council was scheduled to give its decision to Parliament on the need for the project and project approval. As a result of the letter, the Council decided to forgo a determination at that time.

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However, the consortium president, along with restating his commitment to the project, formally asked the government to proceed with its deliberations. He stated that the project owners are firmly in agreement to move forward with the project as soon as government endorsement is given. The Council previously had acknowledged that it believes the country will need another 1,000 MWe generating capacity by the early 1990's.

On October 28 the Federal Council reversed its recent neutral position and agreed to issue the consortium a permit to proceed with the project. The issue is now formally before Parliament for ratification. A yes vote from both houses of Parliament is required under the ratification process. Frequently the recommendations of the Federal Council, acting as an executive group, are adopted by Parliament. In this case, heated discussions and a long debate period are anticipated. There are strong emotions concerning nuclear power and more importantly, millions of Swiss francs at stake, either to be paid eventually by the government, or to remain the responsibility of the project stockholders. Each house will appoint a commission to study the issue in more detail before there is a full debate. This process could take 12 to 18 months according to some sources.

Following the Federal Council's approval, the anti-Kaiseraugst forces organized 15,000 people to march on the site to protest the decision in favor of Kaiseraugst. The political ramifications may endanger the Graben nuclear plant project, slated to follow the Kaiseraugst project on the construction list.

If the Kaiseraugst plant were authorized, it would not be expected to be operational before 1990; this date allows for continued government regulatory delays and anti-nuclear activity through court action. Government approval will aid in reducing the controversy surrounding the plant, but will certainly not eliminate it, thus leading to further government reviews and delays as the plant proceeds through construction. The political struggle facing the project could be too great to overcome.

The French nuclear plants, Blayais unit 1 and Gravelines unit 1 reached nominal capacity on August 7 and 9 respectively. Dampierre unit 4 was connected to the grid on August 18.

West Germany's newest nuclear power plant, the Grafenrheinfeld 1300 MWe PWR unit, is expected to achieve its first criticality within a few days. If further startup tests proceed well, the unit could be in commercial operation by the end of this year. The unit was ordered from Kraftwerk Union in January 1975 by the Bayernwerk utility. It is reported that the unit's power generation costs will be much cheaper as compared to an oil fired plant and will result in a savings of over 300 million DM per year to the electricity users in Bayernwerk's distribution area.

FAR EAST

Representatives of large Australian and US uranium companies have recently visited Japan seeking financing for new production ventures. A weak uranium market combined with high interest rates and prevailing contracting practices make it difficult to borrow from conventional sources so sellers are once again turning to buyers. With their preference for supply security, long-term planning, and diversity, the Japanese are a natural target for requests to finance uranium production ventures. However, it seems likely that the Japanese utilities will react cautiously to such overtures for the very reasons the sellers find them necessary.

Until recently, discussions of Japanese involvement in an Australian enrichment project have been conducted primarily by the two governments. However, the recent formation of a Japanese committee to evaluate the feasibility of such a project marks the beginning of involvement by the private sector. The committee includes Power Reactor and Nuclear Fuel Development Corp. (the quasi-governmental organization responsible for developing Japan's own centrifuge technology), the utilities (led by Tokyo Electric Power Co. and Kansai Electric Power Co.) and the manufacturers (Toshiba, Hitachi and Mitsubishi Heavy Industries). The Uranium Enrichment Group of Australia (UEGA) will send a representative to Japan to participate in this feasibility study. UEGA is also undertaking its own two and one-half year study of the feasibility of establishing a commercial uranium enrichment facility in Australia.

There are good reasons for the two nations to pursue this idea jointly. An Australian enrichment venture would not likely be viable without Japanese customers. On the other hand, the Japanese are likely to be very interested in any new enrichment endeavor as an additional supply source. Even though the Japanese

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are mounting their own enrichment effort, support of and partial reliance on an Australian enrichment facility would be in keeping with the Japanese propensity to think long term and to diversify sources of supply.

Any reliance by Japan on Australia as an enrichment supplier suggests, of course, a continuing and substantial reliance on Australian uranium sources. While Australia has long been a raw materials supplier to Japan, the introduction of enrichment into the situation might lead to Australia's becoming Japan's major source of uranium. Of course, Australian producers are fully aware of the situation and the implications for Australia's developing uranium industry.

UNITED STATES

This month the nuclear industry in the U'S received a badly needed boost from two quarters. Nuclear Regulatory Commission (NRC) Chairman Palladino stated that the Commission is preparing to grant operating licenses to 33 units by the end of 1982. This is in contrast to NRC's previous pessimistic statement of its ability to process only about six licenses per year.

Also this month President Reagan issued his long awaited statement on nuclear energy. Both Mr. Reagan's statement and that of the NRC Chairman are quite optimistic compared to those of their predecessors.

President Reagan's statement is reproduced below in its entirety.

President Reagan's Statement on Nuclear Power

A more abundant, affordable, and secure energy future for all Americans is a critical element of this Administration's economic recovery program. While homeowners and business firms have shown remarkable ingenuity and resourcefulness in meeting their energy needs at lower cost through conservation, it is evident that sustained economic growth over the decades ahead will require additional energy supplies. This is particularly true of electricity, which will supply an increasing share of our energy.

If we are to meet this need for new energy supplies, we must move rapidly to eliminate unnecessary government barriers to efficient utilization of our abundant, economical resources of coal and uranium. It is equally vital that the utilities—investor-owned, public, and co-ops—be able to develop new generating capacity that will permit them to supply their customers at the lowest cost, be it coal, nuclear, hydro, or new technologies such as fuel cells.

One of the best potential sources of new electrical energy supplies in the coming decades is nuclear power. The U'S has developed a strong technological base in the production of electricity from nuclear energy. Unfortunately, the Federal Government has created a regulatory environment that is forcing many utilities to rule out nuclear power as a source of new generating capacity, even when their consumers may face unnecessarily high electric rates as a result. Nuclear power has become entangled in a morass of regulations that do not enhance safety but that do cause extensive licensing delays and economic uncertainty. Government has also failed in meeting its responsibility to work with industry to develop an acceptable system for commercial waste disposal, which has further hampered nuclear power development.

To correct present government deficiencies and to enable nuclear power to make its essential contribution to our future energy needs, I am announcing today a series of policy initiatives:

1. I am directing the Secretary of Energy to give immediate priority attention to recommending improvements in the nuclear regulatory and licensing process. I anticipate that the Chairman of the Nuclear Regulatory Commission will take steps to facilitate the licensing of plants under construction and those awaiting licenses. Consistent with public health and safety, we must remove unnecessary obstacles to deployment of the current generation of nuclear power reactors. The time involved to proceed from the planning stage to an operating license for new nuclear power plants has more than doubled since the mid-1970s and is presently some 10-14 years. This process must be streamlined, with the objective of shortening the time involved to 6-8 years, as is typical in some other countries.

2. I am directing that government agencies proceed with the demonstration of breeder reactor technology, including completion of the Clinch River Breeder Reactor. This is essential to ensure our preparedness for longer-term nuclear power needs.

3. I am lifting the indefinite ban which previous Administrations placed on commercial reprocessing activities in the United States. In addition, we will pursue consistent, long-term policies concerning re-

processing of spent fuel from nuclear power reactors and eliminate regulatory impediments to commercial interest in this technology, while ensuring adequate safeguards.

It is important that the private sector take the lead in developing commercial reprocessing services. Thus I am also requesting the Director of the Office of Science and Technology Policy, working with the Secretary of Energy, to undertake a study of the feasibility of obtaining economical plutonium supplies for the Department of Energy by means of a competitive procurement. By encouraging private firms to supply fuel for the breeder program at a cost that does not exceed that of government-produced plutonium, we may be able to provide a stable market for private sector reprocessing, and simultaneously reduce the funding needs of the US breeder demonstration program.

4. I am instructing the Secretary of Energy, working closely with industry and state governments, to proceed swiftly toward deployment of means of storing and disposing of commercial high-level radioactive waste. We must take steps now to accomplish this objective and demonstrate to the public that problems associated with management of nuclear waste can be resolved.

5. I recognize that some of the problems besetting the nuclear option are of a deep-seated nature and may not be quickly resolved. Therefore, I am directing the Secretary of Energy and the Director of the Office of Science and Technology Policy to meet with representatives from the universities, private industry and the utilities and requesting them to report to me on the obstacles which stand in the way of increased use of nuclear energy and the steps needed to overcome them in order to assure the continued availability of nuclear power to meet America's future energy needs not later than September 30, 1982.

Eliminating the regulatory problems that have burdened nuclear power will be of little use if the utility sector cannot raise the capital necessary to fund construction of new generating facilities. We have already taken significant steps to improve the climate for capital formation with the passage of my program for economic recovery. The tax bill contains substantial incentives designed to attract new capital into industry.

Safe, commercial nuclear power can help meet America's future energy needs. The policies and actions that I am announcing today will permit a revitalization of the US industry's efforts to develop nuclear power. In this way, native American genius—not arbitrary federal policy—will be free to provide for our energy future.

Table 2

DISTRIBUTION OF RELATIVE INVENTORY LEVELS OF US UTILITIES

Years of Forward Consumption In Inventory as of End of 1981	Number of Utilities
0 - 1	17
1 - 2	15
2 - 3	7
3 - 4	3
4 - 5	5
5 - 6	2
> 6	5

The distribution of relative inventory levels among US utilities is shown in Table 2. Relative inventory is the number of years' forward consumption which could be supplied by the utilities' 1982 beginning inventory. The majority of the 54 utilities or utility groups hold a zero to two year inventory, with the median at 1.7 years. Those holding more than two years' forward consumption usually are doing so because of nuclear plant delays combined with pre-existing long term uranium contracts.

The US Department of Energy (DOE) is in the process of raising its prices for separative work under all three types of enrichment contracts. As of October 1, 1981 the DOE SWU price for holders of Long Term Fixed Commitment (LTFC) and Adjustable Fixed Commitment (AFC) contracts increased to $130.75 per SWU. The *published price* for Requirements contracts increased from $119.00 per SWU to $141.15 as of November 2, 1981. However, holders of Requirements contracts will see only an increase of $8.35 per SWU, since the *provisional ceiling charge* ($127.35 per SWU for the latter half of 1981) now applies.

Holders of Requirements contracts pay the lower of the published price or the ceiling charge. The ceiling charge is escalated every calendar half-year according to functions of costs of power and labor. Since power

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